What is claimed is:

10

1. A soft magnetic Co-based metallic glass alloy with high glass forming ability, which has a supercooled-liquid temperature interval (ΔT_{χ}) of 40 K or more, a reduced glass-transition temperature (T_g/T_m) of 0.59 or more and a coercive force of 2.0 A/m or less, said metallic glass alloy being represented by the following composition formula:

$$[Co_{1-n-(a+b)} Fe_n B_a Si_b]_{100-\chi} M_{\chi}$$

, wherein each of a, b and n represents an atomic ratio satisfying the following relations: $0.1 \le a \le 0.17$; $0.06 \le b \le 0.15$; $0.18 \le a + b \le 0.3$; and $0 \le n \le 0.08$,

M represents one or more elements selected from the group consisting of Zr, Nb, Ta, Hf, Mo, Ti, V, Cr, Pd and W, and

 χ satisfies the following relation: 3 atomic% $\leq \chi \leq 10$ atomic%.

2. The soft magnetic Co-based metallic glass alloy as defined in claim 1, which contains 3 atomic% or less of one or more elements selected from the group consisting of P, C, Ga and Ge.